

REMARKS

Applicants thank the Examiner for the thorough examination given the present application.

Status of the Claims

Claims 1, 4, 6-8, and 11 will be pending in the above-identified application upon entry of the present amendment. Claims 1 and 7 have been amended by incorporating the subject matter of claims 5, 10, and 12-13. As such, claims 5, 10, and 12-13 have been cancelled herein. Support for the recitation of the spinning speed in claims 1 and 7 can be found in Example 5 of the present specification. Thus, no new matter has been added. Based upon the above considerations, entry of the present amendment is respectfully requested.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

Statement of the Substance of the Interview

Applicants thank the Examiner for her time during the interview on October 8, 2010. Applicants appreciate the courtesies extended to Applicants' Representative in this application. In compliance with MPEP 713.04, Applicants submit the following remarks.

The Interview Summary sufficiently summarizes the discussions during the interview. Although an agreement could not be reached, Applicants believe that the claims are now in condition for allowance. Should the Examiner believe that there remains any outstanding issues, Applicants respectfully request that the Examiner contact Applicants' Representative so as to expedite resolution of these outstanding issues, via an Examiner's Amendment or the like.

Issues under 35 U.S.C. § 112, first paragraph

Claim 10 is rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement for the reasons recited in paragraph 1 on page 2 of the outstanding Office Action.

Claim 10 has been incorporated into independent claims 1 and 7, but the spinning speed is now recited as 1360 m/min or higher as supported by Example 5. As such, Applicants respectfully submit that the rejection has been overcome and should be withdrawn.

Issues over the Cited References

1) Claims 1, 4, 6-8, and 11-13 are rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Kajita '625 (JP 2003-119625) as further evidenced by Karger-Kocsis.

2) Claims 5 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kajita '625 in view of Karger-Kocsis and in further view of Horiuchi et al. '230 (US 5,800,230).

Applicants respectfully traverse. Reconsideration and withdrawal of the outstanding rejections are respectfully requested based on the following considerations.

Legal Standard for Determining Anticipation

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art." *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Legal Standard for Determining Prima Facie Obviousness

MPEP 2141 sets forth the guidelines in determining obviousness. First, the Examiner has to take into account the factual inquiries set forth in *Graham v. John Deere*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), which has provided the controlling framework for an obviousness analysis. The four *Graham* factors are:

- (a) determining the scope and content of the prior art;
- (b) ascertaining the differences between the prior art and the claims in issue;
- (c) resolving the level of ordinary skill in the pertinent art; and
- (d) evaluating any evidence of secondary considerations.

Graham v. John Deere, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

Second, the Examiner has to provide some rationale for determining obviousness. MPEP 2143 sets forth some rationales that were established in the recent decision of *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007). Exemplary rationales that may support a conclusion of obviousness include:

- (a) combining prior art elements according to known methods to yield predictable results;
- (b) simple substitution of one known element for another to obtain predictable results;
- (c) use of known technique to improve similar devices (methods, or products) in the same way;
- (d) applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- (e) “obvious to try” – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success
- (f) known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;
- (g) some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

As the MPEP directs, all claim limitations must be considered in view of the cited prior art in order to establish a *prima facie* case of obviousness. *See* MPEP 2143.03.

Distinctions over the Cited References

With respect to the first rejection, independent claims 1 and 7 have been amended by incorporating the subject matter of claims 5 and 10, which were not included in the first rejection. Accordingly, the cited references fail to disclose each and every element of the claims. As such, this rejection has been overcome and should be withdrawn.

Turning to the second rejection, during the interview, the Examiner indicated that additional evidence to support that it is not obvious to combine Kajita '625 and Horiuchi et al. '230 could overcome the rejection. Furthermore, on page 11 of the outstanding Office Action, the Examiner states, "In response to the argument over whether the fibers of Kajita respond to heat in the same manner as the claimed invention, the measure of heat shrinkage of Kajita versus Applicant are different. Evidence to show that the two different measurements are comparable could be sufficient to overcome the rejection over Kajita."

In this regard, enclosed herewith is a 37 CFR § 1.132 Declaration of Keisuke Nagashima. The Examiner is respectfully requested to review the enclosed Declaration of Keisuke Nagashima as it provides strong evidence of the patentability of the present invention.

In the enclosed Declaration, Keisuke Nagashima states:

The sample for the measurement of heat shrinkage was the same fiber as Example 5 of the present specification. The measurement of heat shrinkage was conducted in accordance with JIS L 1015. An English version of JIS L 1015 is enclosed.

JIS L 1015 stipulates two ways of measurement: (1) shrinkage percentage by hot water and (2) shrinkage percentage at hot dry (pages 26-27 of the English version of JIS L 1015). Kajita does not explicitly indicate whether measurement (1) or (2) was employed. As such, the measurement was conducted by the method of measurement (1), which is the ordinary method. Further, JIS L 1015 stipulates the temperature of hot water as a "suitable temperature" without indicating a specific temperature. Kajita also does not indicate a specific temperature. In general, the method of shrinkage percentage by hot water is also called "shrinkage percentage by boiling water," and there are many cases in the field of textile material in which the measurement is conducted at a temperature around 100°C. In view of this, this experiment was conducted at a temperature of 98°C. After the fiber was taken out of hot water, a small amount of water that

was attached to the fiber was removed by absorbent paper. Then, the fiber was dried over 48 hours in the atmosphere under the condition of 22°C/65%/RH. The fiber length before and after heating by hot water was measured using a thermomechanical analysis (TMA) apparatus. The fiber was cramped by this apparatus under a load of 0.14 mN/tex. The shrinkage percentage by hot water was calculated by $(L-L')/L \times 100$. The definition of L and L' is provided on page 26 of the English version of JIS L 1015. The result of the measurement is shown in the table below.

	L (mm)	L' (mm)	shrinkage percentage (%)
The Claimed Fiber	24.999	25.754	-3.0

As is apparent from the above result, the claimed fiber showed a negative value of heat shrinkage measured by the same method as Kajita. The negative value of heat shrinkage means that the fiber increases in length upon being subjected to heat. This result clearly shows that Kajita does not inherently involve the claimed fiber.

It is considered that the major reason of the difference in heat shrinkage between the claimed fiber and Kajita is due to the difference of the second resin. In the claimed fiber, the second resin is polypropylene but not ethylene-propylene random copolymer that is used in Kajita. The behavior of heat shrinkage is mainly ruled by the second resin rather than the first resin. The same reason will be applied to the secondary reference, "Polypropylene An A-Z Reference." The secondary reference only discloses the relationship between the spinning speed and the orientation of polypropylene itself. It is not reasonable to apply the data of polypropylene itself to a conjugated fiber since shrinkage behavior of the conjugated fiber depends on the manner of consolidation in the course of melt spinning, in addition to temperature and drawing speed of melt spinning. The manner of consolidation is influenced by the kind of resins contained in the conjugated fiber. In the claimed invention, the second resin is polyethylene but not polypropylene. The second resin of polyethylene has a controlled lower value of the orientation index. The controlled lower value of the orientation index enables the desired manner of consolidation of the conjugated fiber in the course of melt-spinning. A suitable control of the orientation index successfully results in producing a heat-extensible fiber.

Thus, the enclosed Declaration provides the evidence requested by the Examiner, which shows that the present invention is not disclosed by Kajita '625 in view of the other cited references. Therefore, withdrawal of the outstanding rejection is respectfully requested. Any contentions of the USPTO to the contrary must be reconsidered at present.

Conclusion

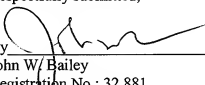
All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad M. Rink, Registration No. 58,258, at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

Dated: February 15, 2011

Respectfully submitted,

By 

John W. Bailey
Registration No.: 32,881
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road, Suite 100 East
P.O. Box 747
Falls Church, VA 22040-0747
703-205-8000

Attachment: 37 CFR § 1.132 Declaration of Keisuke Nagashima